



# ***Department of the Navy Information Network Project Office***

***- INPO -***



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## Shared Goal

***An effective information management strategy and execution path that achieves the maximum benefit with limited resources. Managed in an approach that all of DoN is willing to collaboratively participate.***



# History and Tasking

## History

- |            |  |
|------------|--|
| 8 Feb 95   | SECNAV memo raises concern about IT            |
| Feb-Apr 95 | DoN Wash Region ITTT                           |
| 2 Aug 95   | SECNAV memo places IT in top 10 priorities     |
| 26 Oct 95  | SECNAV memo directs IT resource consolidation  |
| 28 Dec 95  | ASN(RDA) ltr sets INPO resources and personnel |
| 7 Jan 96   | INPO officially stands up                      |

## Tasking

- Design DoN HQ network to serve as model for DoN
- Establish unclas Washington Metro Area connectivity (virtual node)
- Facilitate development of IT standards to enable connectivity across DoN and act as technical liaison for FWESB & ITEC
- Technical support for Reengineering Process Improvement IPTs

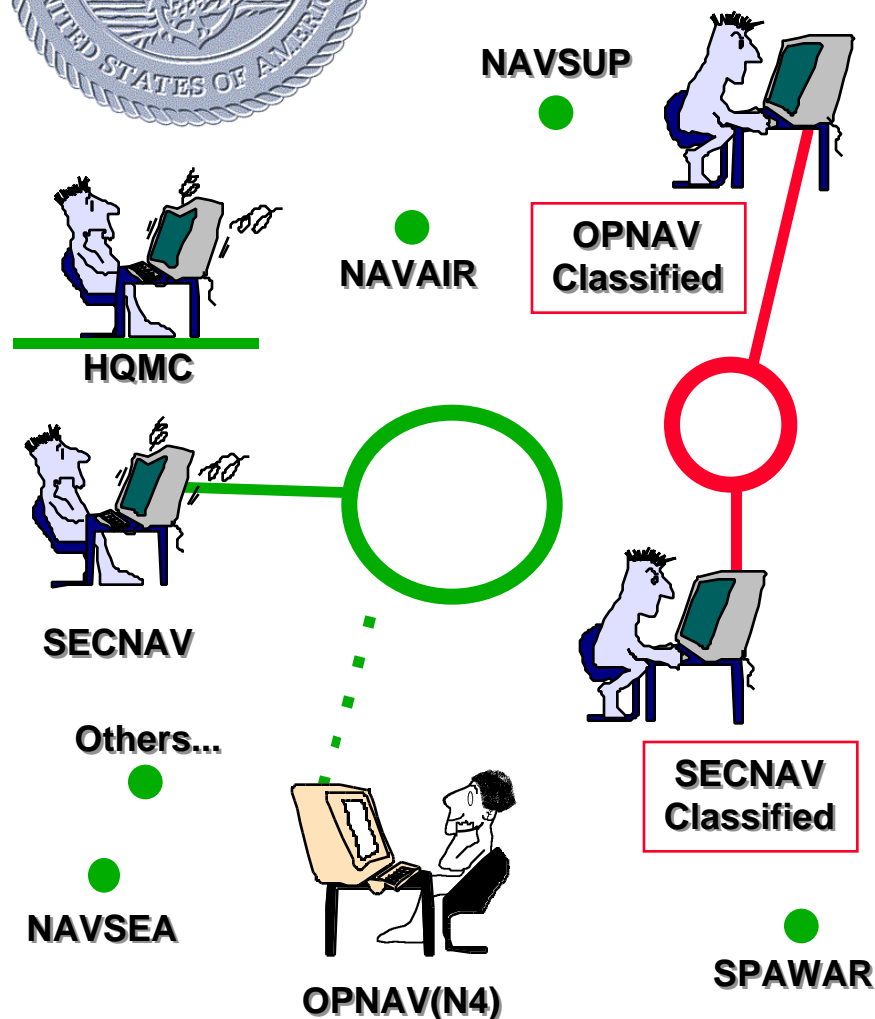


## What INPO Is and Isn't!

- **NOT - the “dictator” for DoN Standards and Architectures!**
- **NOT - the “director” for IM/IT for DoN!**
- **NOT - the “final” say on anything!**
- **INPO is a Facilitator, Coordinator, Administrative and Engineering support organization for a unified DoN wide teaming effort on common IM/IT issues in support of the Secretary's goals.**



## Issue

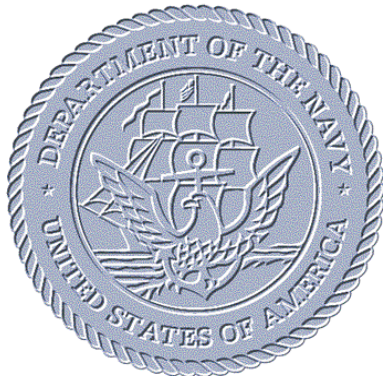


- **SECNAV to ASN(RDA) Memo**  
**Dtd 8 FEB 95**

- Identified multiple shortfalls
- Identified a desired end state of Improved DoN HQ Efficiency & Effectiveness
- Desired a brief on approach

- **N6 & ASN(RDA) Joint Meeting**  
**14 FEB 95**

- Joint acknowledgment that HQ IM Infrastructure required updating, extension and capability improvements
- Requirement to develop reliable connectivity and communications with the SYSCOMS, BUPERS, other WASH Region HQ's, and other DoN elements



# The ITTT -- Information Technology Tiger Team

- **STUDY TEAM**

- **RDA/N6 Co-Chaired** (CAPT Dave Smania, N6 & CDR Craig Luigart, RDA)

- **Membership**

- **SECNAV STAFF:** UNDER, OPA, RDA, NISMC, NAVCOMPT
    - **OPNAV STAFF:** N4, N6, N8
    - **USMC:** HQMC, MCCDC, MARCORSYSCOM
    - **SYSCOMS:** AIR, SEA, SUP, SPA

- **Engineering Sub-Group on Integrating Technology Capability**

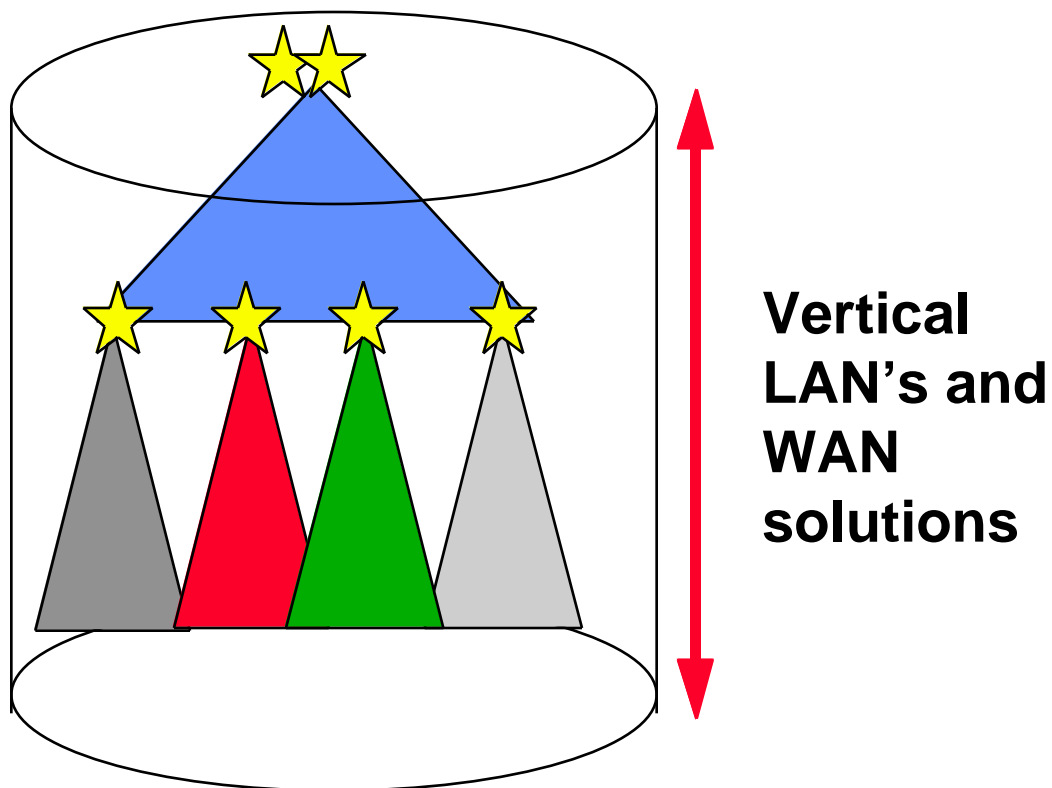
- **GOALS TO BE ADDRESSED**

- **Near Term:** SECNAV/OPNAV.CMC Connectivity Issue's  
SECNAV'S 8 FEB 95 Memo

- **Long Term:** DoN Enterprise Communications Infrastructure



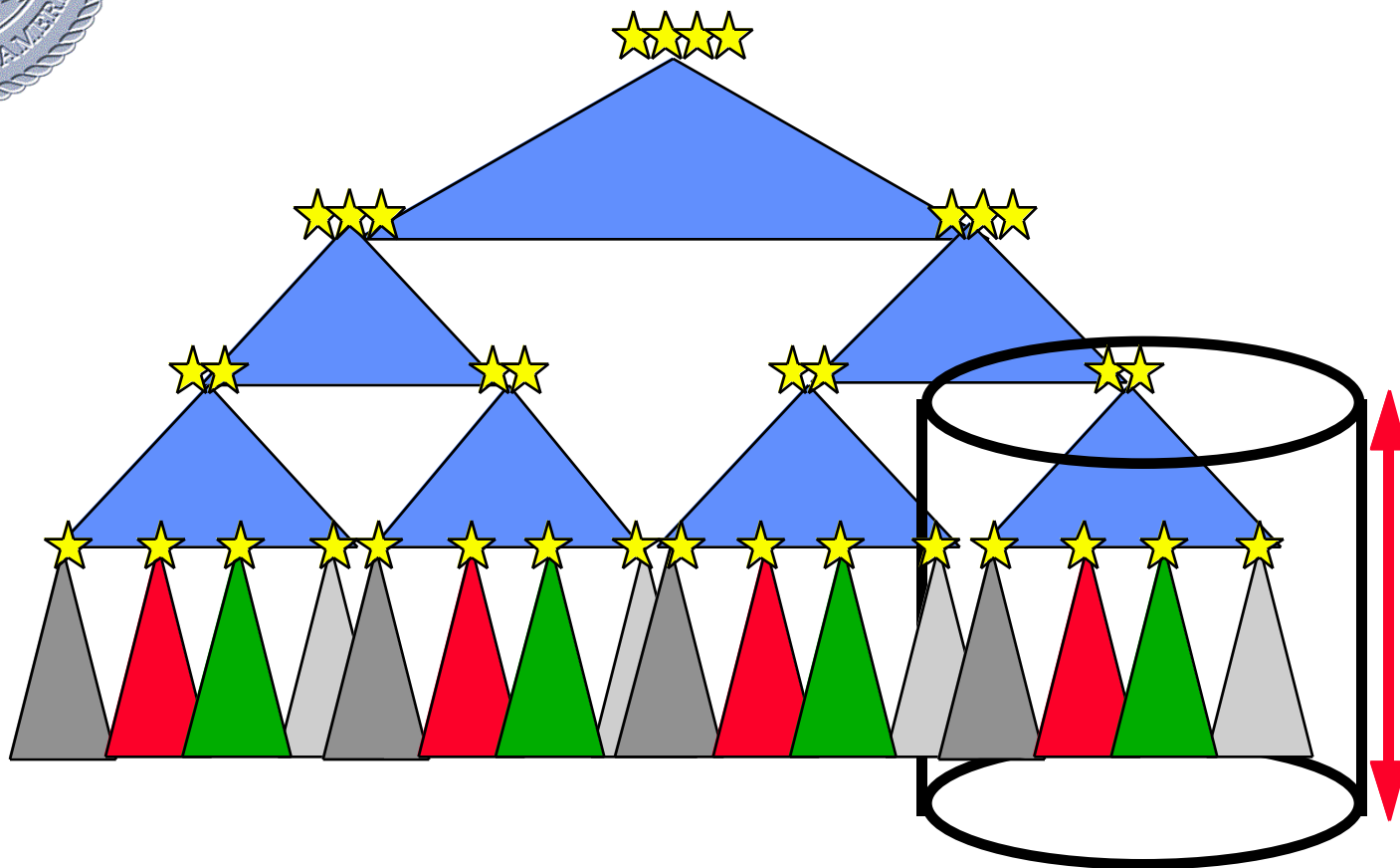
# Cutural Driven Stove Pipes







# Not an Island!

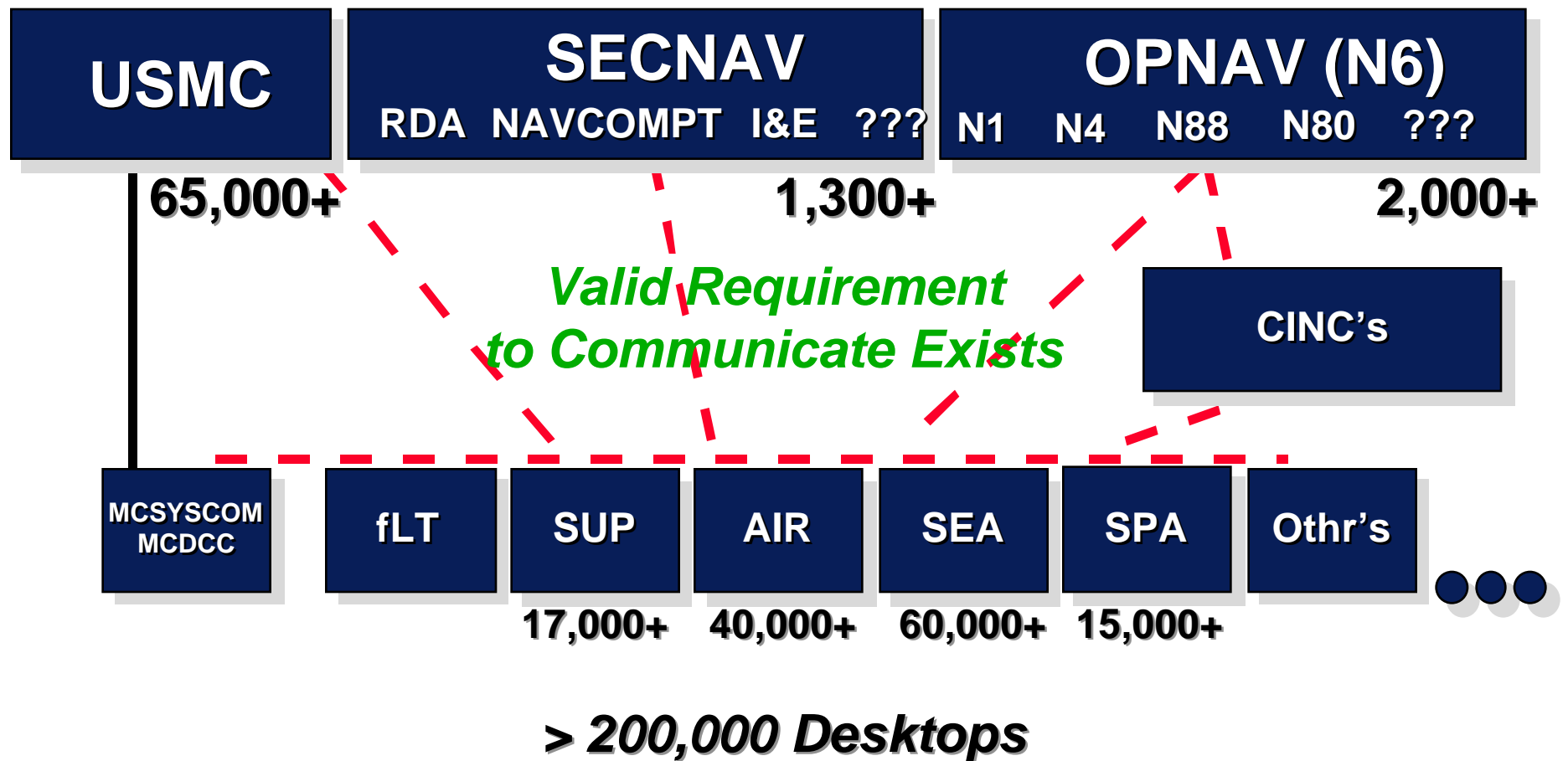




# What We Found

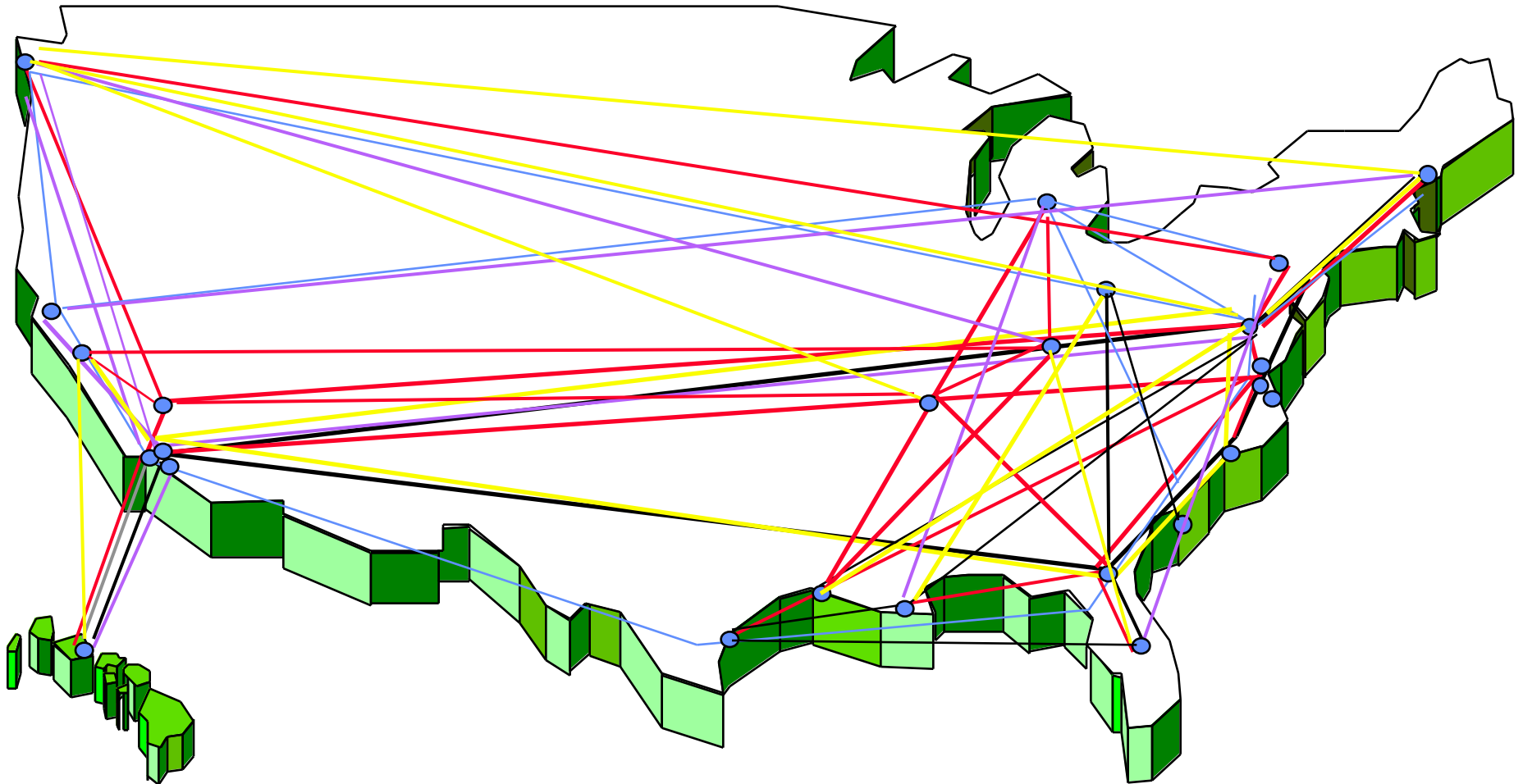
*Lack of Systems Integration Management Approach*

**Classified Vs. Unclass Limitations**



# Resultant Investment

NewNet, NAVWAN, NIPR, CrMissileNet, NAVSUP, USMC-Net, PersNet, ? Others





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# The Need (Good News)

- Explosion of Information Technology (IT) has nurtured the development of very capable systems
- Desktop computing resources have taken systems development out of the “glass-house” and down to the end-user
- “Communities of interest” are getting their specific problems solved
- “Standards” are finally being recognized as a best-practice



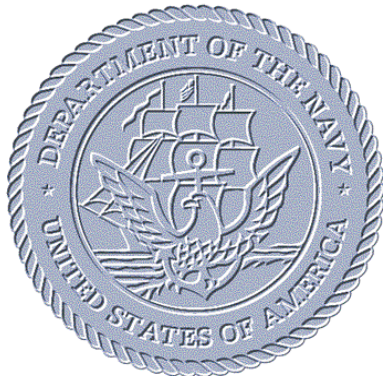
# The Need (Bad News)

- There are hundreds of “capable systems” which don’t interoperate
- Many systems are developed in isolation (i.e.. “Stovepipes”)
- Use of “Standards” does not guarantee interoperability



# The Need (In Summary)

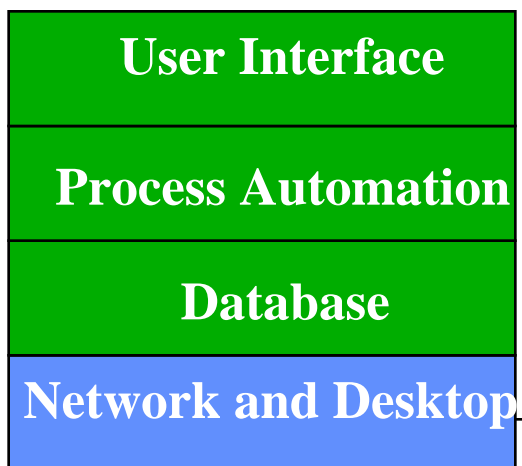
- Applications/systems are built as self-contained “stove pipes”
- There is little or no interaction between applications/systems. At most, they share a common desktop platform, and a LAN.
- Little use is made of COTS, instead we frequently rely on “coding from scratch”.
- The lack of commonality and systems approach has yielded applications that do not scale well across the enterprise.
- Our applications cannot share needed data and do not yield consistent information.



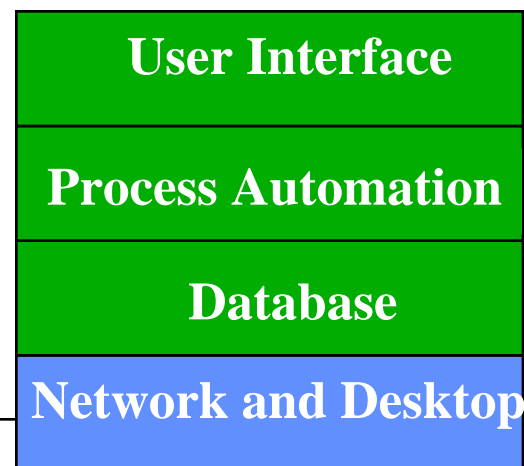
# The Need

## (Typical Systems Architecture)

### System A

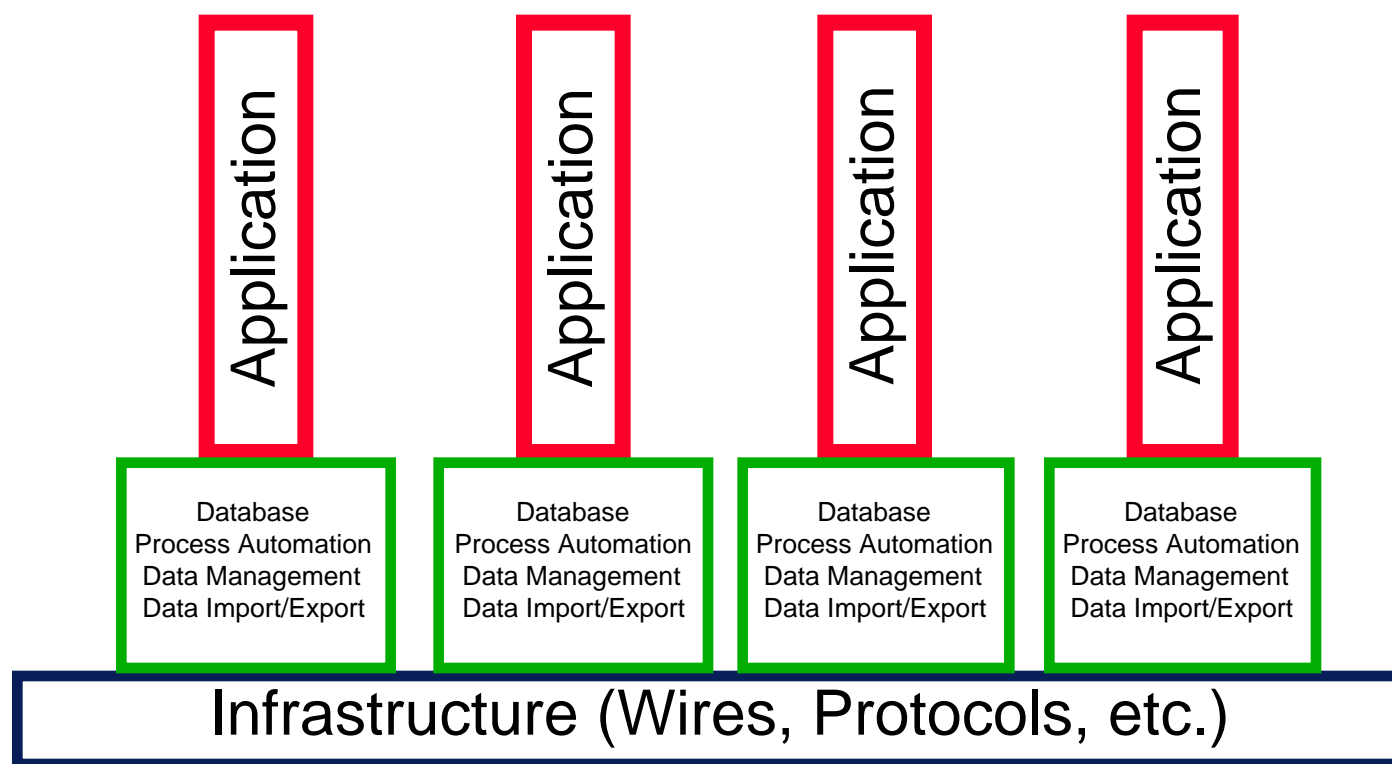


### System B





# Today







## ITTT FINDINGS

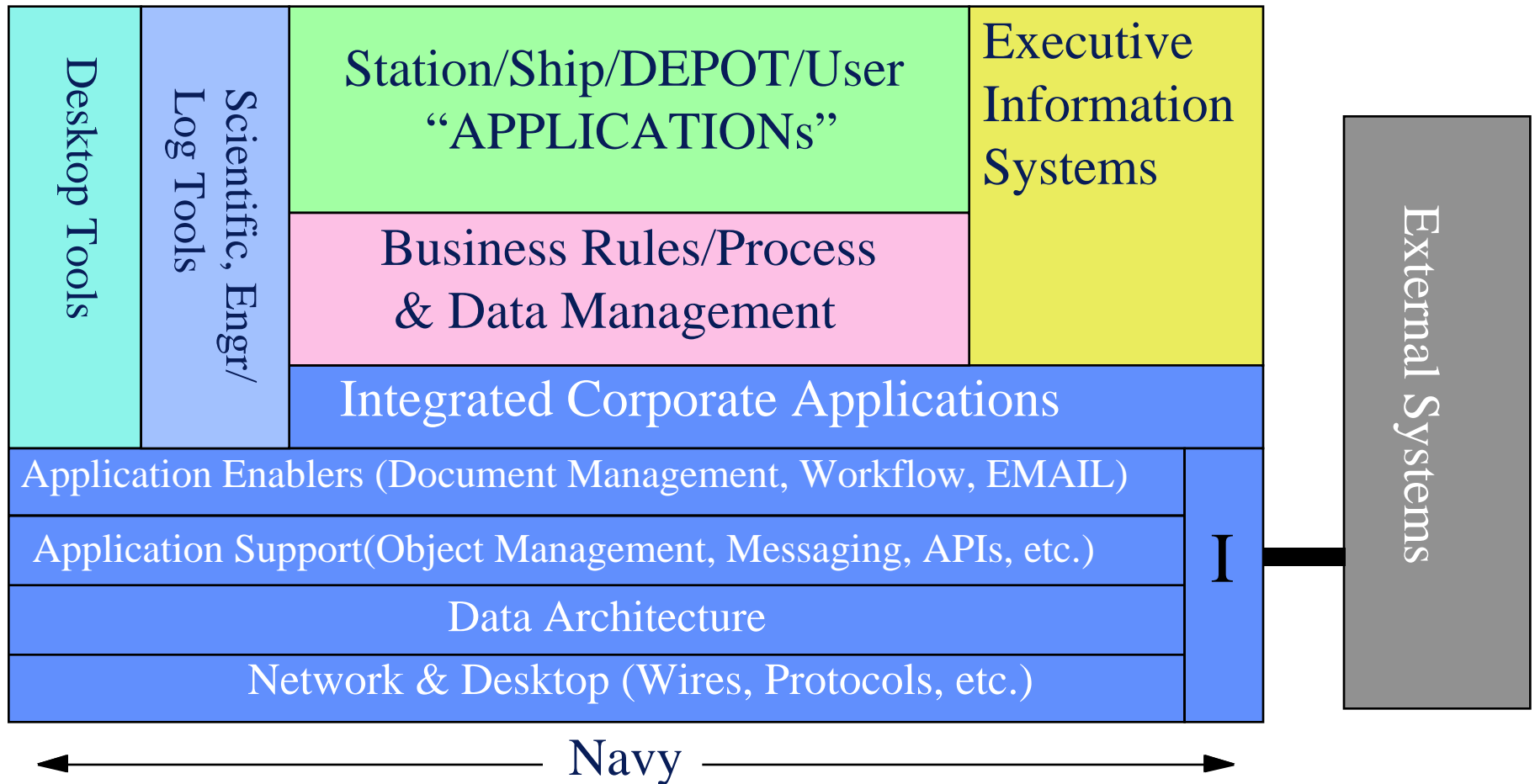
- **ASN(RDA) -- POLICY AND OVERSIGHT FOR INFORMATION MANAGEMENT WITHIN DoN**
- **HAVE NOT HAD Don HQ INFORMATION MANAGEMENT STRATEGY**
- **NUMEROUS INSTRUCTIONS IN PLACE PROVIDE POLICY AND ROLES GUIDANCE**
- **EXISTING FORMAL HQ & Don IM STRATEGIES -- INDEPENDENTLY DESIGNED (STOVEPIPED) AS WELL AS NUMEROUS "INFORMAL" NETWORKS ADDRESSING USER REQUIREMENTS**
- **CLASSIFIED VS UNCLASSIFIED OPNAV /SECNAV USER REQUIREMENTS NEVER MET -- RESOURCE & TECHNOLOGY CONSTRAINED**
- **SIGNIFICANT PORTION OF DON I-STRUCTURE FROM GREY INVESTMENT AND EFFECTIVE TO DEPLOYING ORG**



## Why Now?

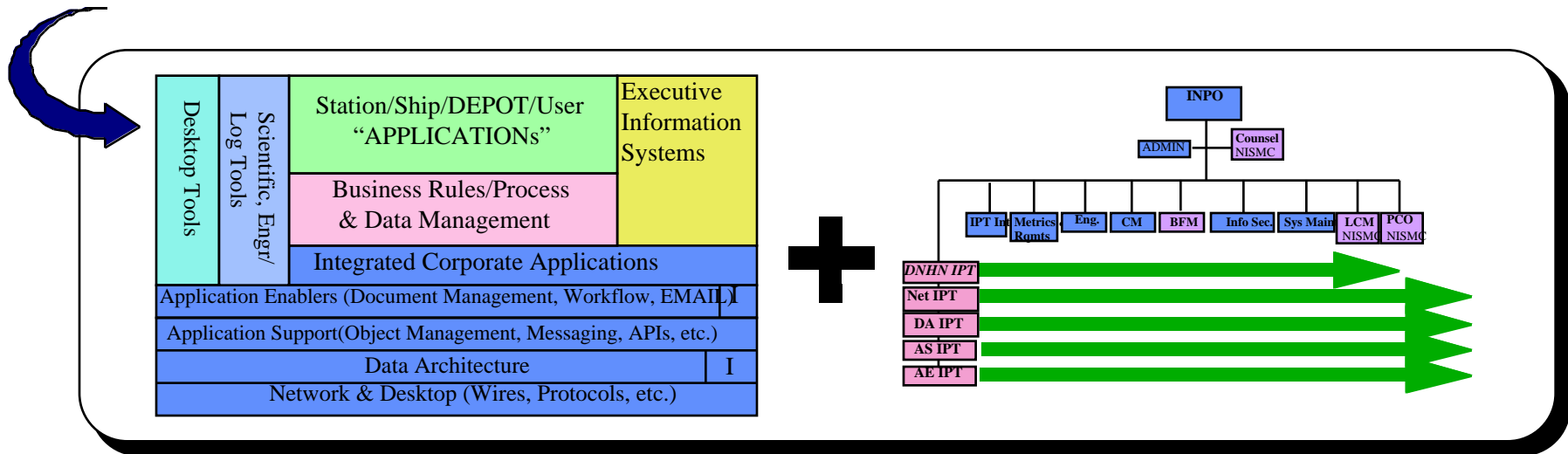
- **Technology In Place**
- **Quantifiable ROI**
- **Being Done Piecemeal**
- **Can't Function Today Without It**

# Vision Architecture



# INPO Model

## Tasking



## Products



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# The Architecture

## (Goals)

- Factor-out common elements from stove-pipe applications
- Generalize the factored elements and describe using industry-standard terminology
- Redefine infrastructure to include the industry standard elements
- Provide appropriate interfaces at each level to service applications and subscribers
- Preserve a community's ability to solve its unique problems



# The Architecture (Features)

- TAFIM Compliant
- Standard selection process will ensure interoperability
- Infrastructure-based



# Success Factors

- Disciplined approach to the design or procuring of systems which will interface with the Architecture
- The Architecture must be flexible, but have a strong configuration management process
- User must be empowered through training and have access to a suite of COTS tools
- International and Industry standards must be employed -- Let the market decide
- Commitment from the highest levels of the organization



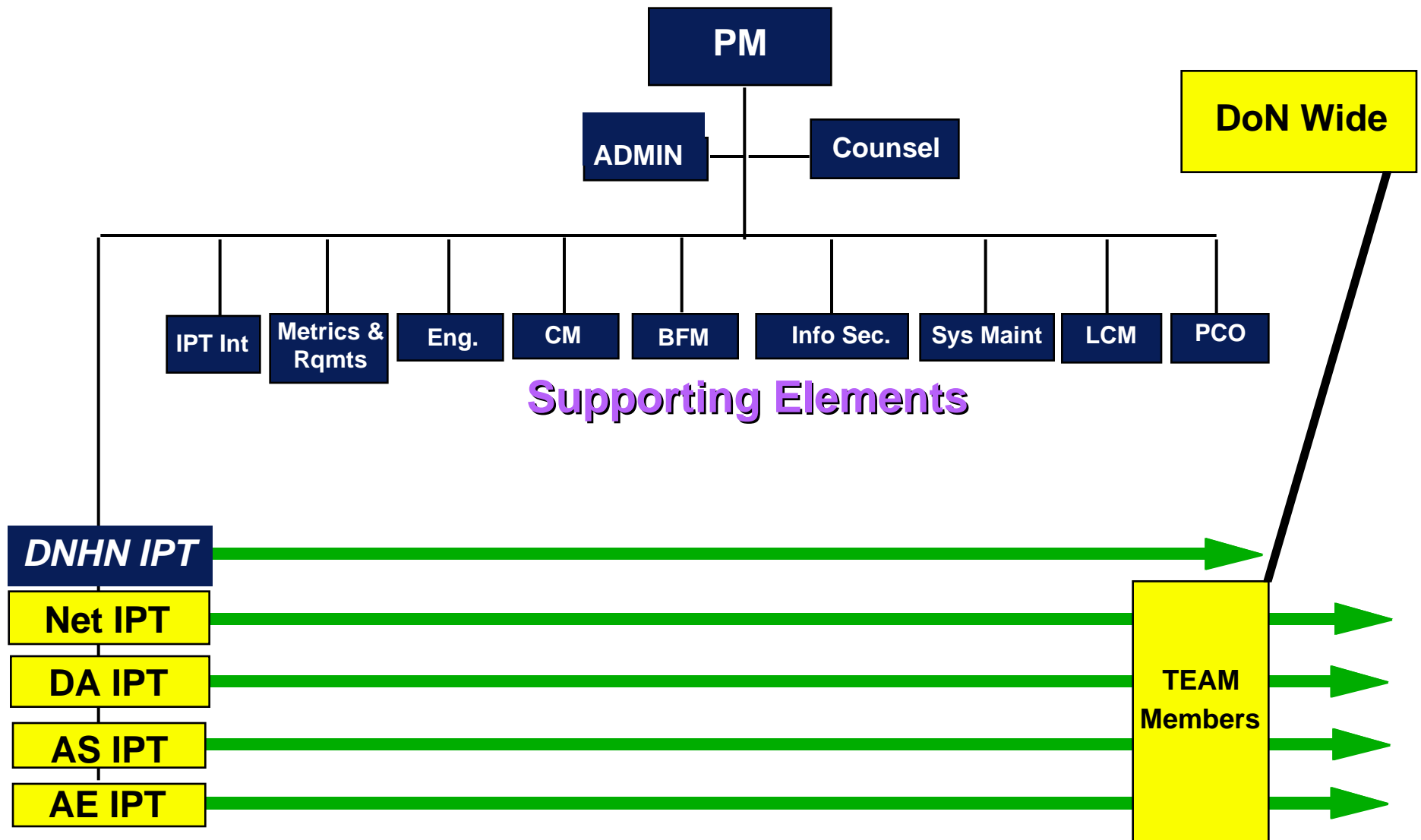


# INPO Organization Model

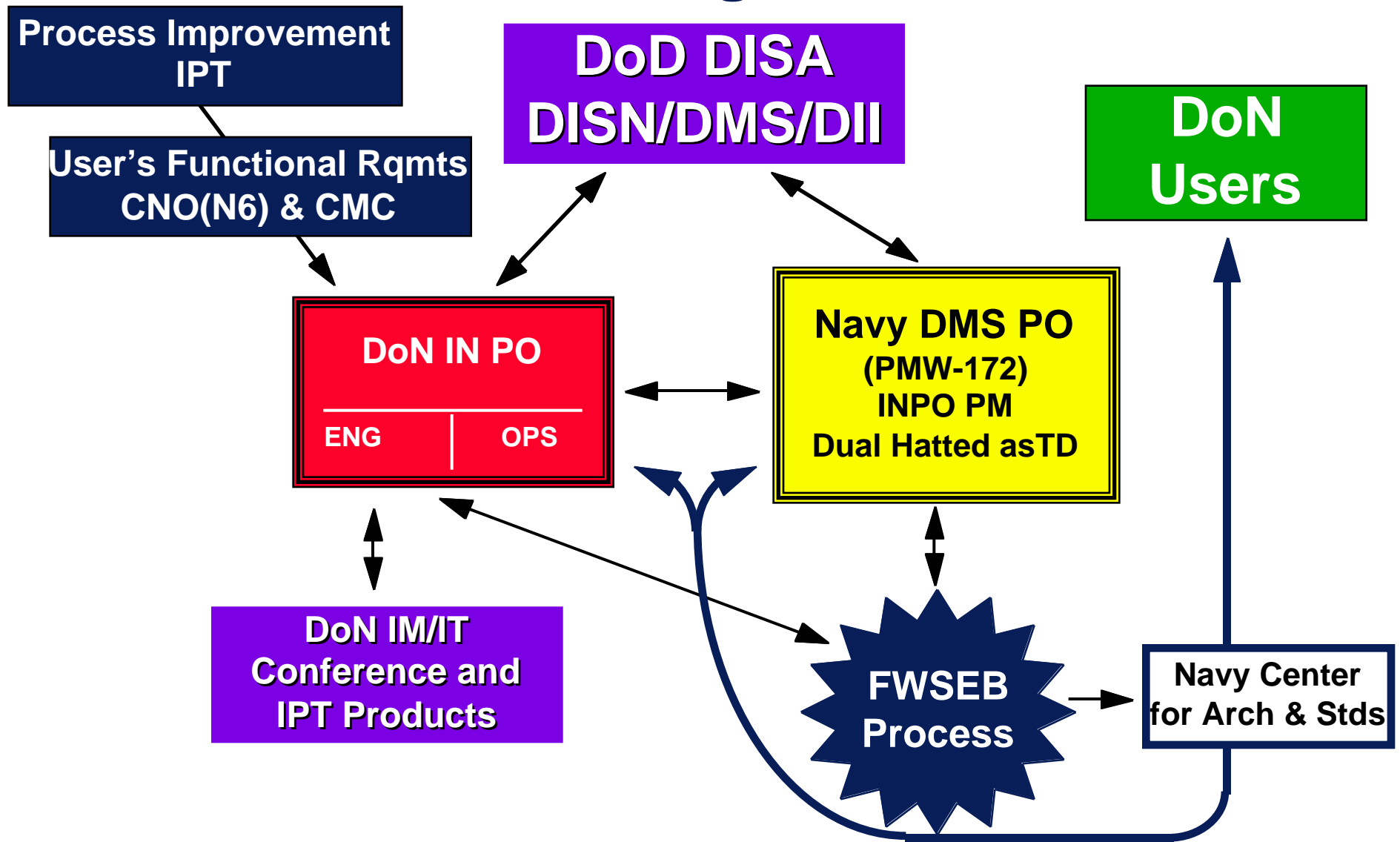
- **10 Competencies supporting IT related processes**
- **5 Teams performing IT services and projects -- one dedicated team for DNHN and four others supporting required services (including standards)**
  - **Network - Computer networking (WAN, LAN, VTC)**
  - **Data Architecture - Data formatting, storage, warehousing, sharing, security**
  - **Application Support - Messaging, object management, other support elements**
  - **Application Enabler - Workflow, Document Management, EMail, Calendaring, etc...**

Application Enablers (Document Management, Workflow, EMAIL)	
Application Support(Object Management, Messaging, APIs, etc.)	
Data Architecture	
Network (Wires, Protocols, etc.)	

# INPO Organization

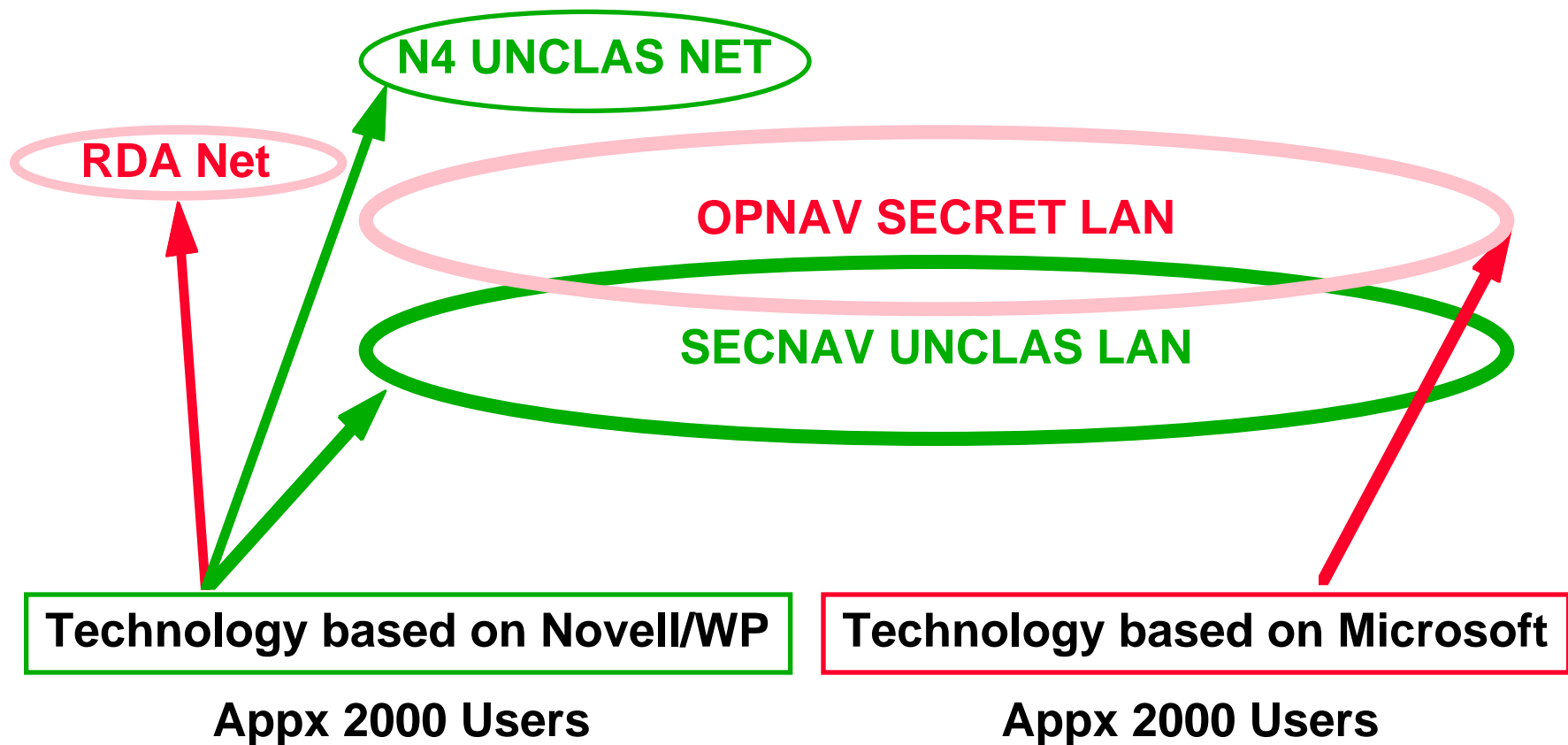


# DoN Wide Information Management Steering Process



# Dept of the Navy HQ Network -DNHN

Support, Training & Sparing Models Different -- Like having 2 models of Radar on the same ship or 2 different acft in the same squadron.





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## DoN WAN Team Prototype

- Major Infrastructure deployers engaged
- Lead by “virtual” DPM from Navy field activity
- Goal to leverage Navy’s large legacy base
- Provides immediate roadway for DMS application
- Basis for new business practices deployment
- Highly successful example of the process desired on many IM/IT issues



# Support to Process Improvement

- **Support role defined as**
  - IT support required by DoN in development and implementation of business systems and reengineering
  - Technical assistance, facilitation and standards for IPTs that use IT related processes in execution of their programs
- **Technical support to Process Improvement IPT and PDASN(RDA) Business Process**
- **Goal criteria for any systems development architecture: open systems, cross platform, corporate-oriented, client-server, COTS**

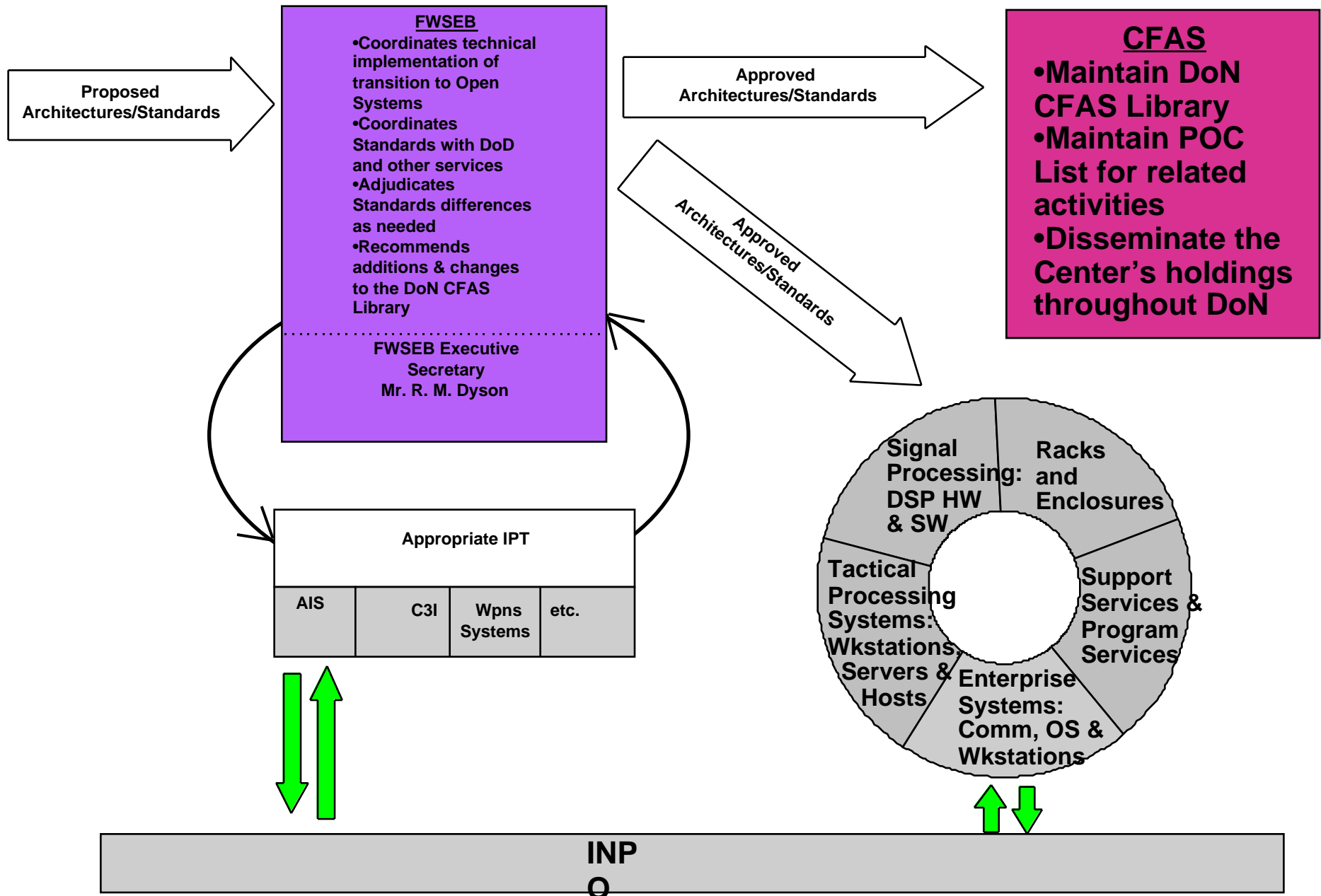


# IT Standards

- **Standards must emphasize DoN reliance upon open systems and TAFIM compliant architecture - accepts our diversity!**
- **Standards key: maximize existing infrastructure in short term, migration to standards compliance in long term**
- **Development strategy**
  - INPO facilitates development thru cross-section IPTs
  - FEWSB approves IT standards
  - Published in DoN Center for Architecture
  - ITEC develops contracts for DoN acquisition (with INPO support)
  - DoN customers procure IT items off approved contract list
- **Early focus will be in Networks (thru DoN WAN and Application Enablers (thru DMS))**
- **ENTERPRISE TEAMING!**



# IT Standards - Flow Process





# How Big is this Problem?

- **Support for a multioperational systems environment**
- **Reliable X.400/DMS Electronic Mail**
- **Security**
- **Synchronized directory services - enabled messaging layer**
- **Direct access to mail enabled attachments**
- **Remote Capability - dialin and visitor hosting to home.**
- **Support migration to Defense Messaging System**
- **File Sharing Repository for sharing large files/documents**
- **Network bandwidth to support engineering and logistics data, large files, graphics, and data intensive on line searches**
- **VTC upgrades and DT-VTC capability based on emergent H.320/T.120 standards**
- **Enterprise Apps - Calendaring Docment Management and Work Flow, etc... ???**

